

SPECIFICATION

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HIGH FLOW POLYPHENYLENE ETHER FORMULATIONS WITH DENDRITIC POLYMERS

Cross Reference to Related Applications

This application is a continuation of Application No. 09/548,855 filed on April 13, 2000, ^{now U.S. Patent 6,414,084,} the entire contents of which are incorporated herein by reference.

Background of Invention

- [0001] This invention relates to polyphenylene ether resins, and more particularly polyphenylene ether formulations with improved flow.
- [0002] Polyphenylene ether resins (PPE) are an extremely useful class of high performance engineering thermoplastics by reason of their hydrolytic stability, high dimensional stability, toughness, heat resistance and dielectric properties. They also exhibit high glass transition temperature values, typically in the range of 150 ° to 210 °C, and good mechanical performance. This unique combination of properties renders polyphenylene ether based formulations suitable for a broad range of applications, which are well known in the art. One example is injection-molded products, which are used for high heat applications. Polyphenylene ether polymers typically have relatively high molecular weights and possess high melt viscosity with intrinsic viscosity values typically greater than about 0.4 dl/g as measured in chloroform at 25 ° C.
- [0003] One area in which polyphenylene ether based compositions has required an improvement is melt flow capability, i.e. the ability to flow freely at elevated temperatures during various processing stages such as extrusion and molding. Poor melt flow can impact the size and type of the part which can be prepared with the